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09/892,926	06/26/2001	Yasuhiro Ogata	29288.1400	3852
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EXAMINER SHIBRU, HELEN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/892,926

**Applicant(s)**

OGATA ET AL.

**Examiner**

HELEN SHIBRU

**Art Unit**

2621

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

**DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/08/2010 has been entered.

***Response to Amendment***

2. The amendments, filed 06/08/2010, have been entered and made of record. Claims 16-23 are pending.

***Response to Arguments***

3. Applicant's arguments filed 06/08/2010 have been fully considered but they are not persuasive. See below.

Applicant states, "Applicant assert that a demultiplexer can only understood to receive multiple input signals, and composite those signals into a single output signal."

Examine respectfully disagrees. Demultiplexer outputs several signals as opposed to single output signal. It is a multiplexer that receives several signals and output a single signal. Please refer to the definition of demultiplexer in a dictionary.

IEEE defines demultiplexer as follows: "*An electronic switch with one input and several outputs. Encoded selection signals control which output is connected to the input. Contrast: multiplexer.*"

Applicant argument was relied on this assertion which is the Hanaya prior art demultiplexer outputting a single output signal. This assertion leads Applicant to view Hanaya's

reference and the basic function of the components way off base and conclude that Hanaya only output single signal.

Applicant stated that the demultiplexer (24) of Hanaya outputs single signal and refer to col. 5 lines 48-67, col. 6 lines 18-26, and figure 4 for support of such a teaching. The Examiner respectfully disagrees as nowhere in the prior art is found that the demultiplexer outputs a single signal.

The claims still do not specifically recite the volume level was set before they are obtained by the user. The user can set the audio signals that she/he 'obtains' to have a desire volume level in order to get different volume level between the two signals.

Nonetheless it is notoriously well known in the reproducing and recording art that obtaining audio signals having different volume level and adjusting the levels in order to reduce discomfort. The Examiner hereby added another prior art in order to expedite prosecution the case.

Applicant states when switching occurs in Hanaya, "the program currently received 9the first channel) is converted into a static image to mute the sound of the program currently being received, NOT the new channel (the secondly received, incoming signal)."

Examiner respectfully disagrees. Hanaya teaches when switching (from step 111-step 113), the second audio signal which is released in step 114 is muted. There is no volume coming out from the second channel or the new channel until step 114. Applicant raised the same argument before and the Examiner addressed this limitation and the issues in at least one of the previous Office Actions. Please refer to the previous Office Actions as well.

To conclude, the claimed invention does in fact read on the cited references for at least the reasons discussed above and as stated in the detail Office Action as follows.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16-18 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanaya (US Pat. No. 5,754,258) in view of Davidson (US Pat. No. 5,778,077).

Regarding claim 16, Hanaya teaches an audio processing apparatus, comprising:

a first obtaining section for firstly obtaining a first audio signal from a first source (audio signal of the 'currently received channel' as shown in figure 25);

a second obtaining section for secondly obtaining a second audio signal from a second source (audio signal of the 'newly input channel' as shown in figure 25),

an output control section for selectively switching between the first audio signal obtained at the first obtaining section and the second audio signal obtained at the second obtaining section to be output as a sound from a speaker (switching from the currently received channel to the newly received channel and then to the currently received channel is performed as shown in figure 25),

a mute section for muting the second audio signal (the new channel audio is muted or not outputted till step 114, see figure 25 and the response above),

wherein when switching a sound to be output from the speaker from a sound based on the first audio signal to a sound based on the second audio signal, the output control section completes an output of the sound based on the first audio signal, and the mute section mutes the second audio signal (see figure 25, abstract, and col. 21 line 1-col. 22 line 15, switching is completed at step 113 and the second audio signal is muted and only at step 114 the second audio signal is unmute). See the response above as well.

Claim 16 differs from Hanaya in that the claim further requires the first and the second audio signals having different volume level.

In the same field of endeavor Davidson teaches receiving different volume levels from two channels (see col. 4 lines 44-67). Therefore in light of the teaching in Davidson it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hanaya by providing different volume levels of different channels in order to control the level of the audio signals.

Regarding claim 17, Hanaya discloses the second source is a reproduction only medium (see figure 4 and col. 10 line 66-col. 11 line 11).

Regarding claim 18, Davidson discloses the second audio signal has a smaller volume level than the first audio signal (see abstract and col. 4 lines 44-67, having different volume level between channels means one channel having smaller volume level than the other).

Regarding claim 20, Hanaya teaches an audio processing apparatus, comprising:

a first obtaining section for firstly obtaining a second audio signal from a first source (audio signal of the 'currently received channel' as shown in figure 25);

a second obtaining section for secondly obtaining a third audio signal from a second source (audio signal of the 'newly input channel' as shown in figure 25),

a mute section for muting the second audio signal (the new channel audio is muted or not outputted till step 114, see figure 25 and the response above),

an output control section for selectively switching between the first audio signal obtained at the first obtaining section and the second audio signal obtained at the second obtaining section to be output as a sound from a speaker (switching from the currently received channel to the newly received channel and then to the currently received channel is performed as shown in figure 25),

an operation detecting section for detecting an operation of a user (see col. 4 lines 54-61, col. 7 lines 58-67 where the prior art teaches user operates the switching process),

wherein

when switching a sound to be output from the speaker from a sound based on the first audio signal to a sound based on the second audio signal, the output control section completes an output of the sound based on the first audio signal when an operation of the user is detected by the operation detecting section while the sound based on the first, the mute section mutes the second audio signal (see rejection of claim 16 above and col. 7 lines 58-67 where the prior art teaches user operates the switching process, and also the response above), and

the mute section un-mutes the second audio signal and the output section starts an output of the sound based on the second audio signal (see step 114 in figure 25) when the operation of

the user is detected by the operation detecting section (*emphasis added*), the claim limitation is interpreted as the first operation that is detected while the first audio signal is output, as claimed in claim 20, page 4 lines 6-8 since Applicant used "the" language) subsequent to the mute state (subsequent to the mute state, the second audio signal is un-mute) (see rejection of claim 16 and the response above as well).

Claim 20 differs from Hanaya in that the claim further requires the first and the second audio signals having different volume level.

In the same field of endeavor Davidson teaches receiving different volume levels from two channels (see col. 4 lines 44-67). Therefore in light of the teaching in Davidson it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hanaya by providing different volume levels of different channels in order to control the level of the audio signals.

Regarding claim 21, the limitation of claim 21 can be found in claims 16 and 20. Therefore claim 21 is analyzed and rejected for the same reasons as discussed in claims 16 and 20 above.

Claims 22-23 are rejected for the same reasons as discussed in claims 17-18 respectively above.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanaya (US Pat. No. 5,754,258) in view of Davidson (US Pat. No. 5, 778, 077) and further in view of Official Notice.



Regarding claim 19, Hanaya teaches a third obtaining section for obtaining a third audio signal from a third source (see col. 10 lines 53-col. 11 line 11 where the prior art teaches receiving multiple audio signals with the corresponding multiple channels),

wherein the output control section selectively switches among the first audio signal obtained at the first obtaining section, the second audio signal obtained at the second obtaining section, and the third audio signal obtained at the third obtaining section to be output as a sound from a speaker (see col. 7 lines 40-57 switching channels or selectively switching channels is performed, the process shown in figure 25 performs when channel switching desires); and

when switching a sound to be output from the speaker from the sound based on the third audio signal to the sound based on the first audio signal, the output control section completes an output of the sound based on the third audio signal and subsequently starts an output of the sound based on the first audio signal (see rejection of claim 16 above; Hanaya teaches receiving multiple channels, and the switching process discussed in figure 25 covers when channel switching from first source to second source then from second source to third source and from third source to first source for instance performs).

Claim 19 differs from the proposed combination in that the claim further requires two sources (first and third) having same volume level.

Official Notice is taken that it is notoriously well known to provide two audio signals from two channels with same volume level. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the proposed combination

by providing a first and a third audio signal having same volume level in order for the listeners perceives sound in same range.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 20-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 20 recite "the mute section un-mutes the second audio signal and the output section starts an output of the sound based on the second audio signal when the operation of the user is detected by the operation detecting section subsequent to the mute state;" and claim 21 recites "a fourth step of un-muting the second audio signal and starting an output of the sound based on the second audio signal when receiving the operation of the user is detected subsequent to the second audio signal being muted." There is found no discussion about the user operating such an operation in the present Application disclosure. Paragraphs 0006, 0021, 0057, 0072 and 0074 discusses user but only states 'disturbance felt by the user.' Similarly paragraphs 0042-0046, 0048-0050, 0058, 0066, and 0071 discusses operation but only operation between recording modes. Applicant is respectfully requested to direct the Examiner where such a limitation and a condition found in either the drawings or specification (both) in the reply to this Office Action.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 20 recites the limitation "the first audio signal" in line 8. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted element is: "second" in line 7, it should have been written as " the second audio signal having a volume level different from that of ...".

#### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bice, Jr (US PAT. No. 4, 308, 424).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571)272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HELEN SHIBRU/  
Examiner, Art Unit 2621  
August 09, 2010